

Claim Listing

1. (Currently amended) A stereo microscope comprising: a hollow elongated body having opposite ends and enclosing first and second optical paths extending through the microscope, one of said ends having two oculars, each including an ocular lens assembly, a prism assembly in each optical path adjacent each ocular, a lens magnification changer rotatably mounted about an axis and located intermediate the ends of said hollow elongated body microscope, a first series of bores located about the periphery of said lens magnification changer in a common plane and extending diametrically through said lens magnification changer, a second series of bores located about the periphery of said lens magnification changer in a common plane and extending diametrically through said lens magnification changer, a third series of bores located about the periphery of said lens magnification changer in a common plane and extending diametrically through said lens magnification changer, said second series of bores being axially located between said first and third series of bores of said lens magnification changer, said bores of said first and third series each including a lens assembly, the other of said ends of said hollow elongated body including an objective lens.
2. (Original) A stereo microscope as set forth in claim 1, further including a lens assembly located in at least one of said second series of bores.
3. (Original) A stereo microscope as set forth in claim 2, further comprising: a camera located in said hollow elongated body between said two oculars and said lens magnification changer and in line with one of said second series of bores.

4. (Original) A stereo microscope as set forth in claim 1, further comprising a camera located in said hollow elongated body between said two oculars and said lens magnification changer and in line with one of said second series of bores.

5. (Original) A stereo microscope as set forth in claim 1, further comprising a light source located adjacent said objective lens in the other of said ends of said hollow elongated body.

6. (Original) A stereo microscope as set forth in claim 5, wherein said light source is either one or a group of LEDs.

7. (Currently amended) A stereo microscope as set forth in claim 6, further comprising a wall, ceiling wall-ceiling or vertical support mount, an adjustable arm attached at one end to said support mount and at an opposite end to said stereo microscope for supporting and positioning said stereo microscope, an attachment connecting said stereo microscope to the head of an operator.

8. (Original) A stereo microscope as set forth in claim 4, wherein said first and second optical paths extend through said microscope and are located in a plane common to each path throughout said hollow elongated body.

9. (Original) A stereo microscope as set forth in claim 6, wherein said first and second optical paths extend through said microscope and are located in a plane common to each path throughout said hollow elongated body.

10. (Previously presented) A stereo microscope as set forth in claim 8, including means pivotally mounting said oculars in said plane that is common to said first and second optical paths.

11. (Previously presented) A stereo microscope as set forth in claim 9, including means pivotally mounting said oculars in said plane that is common to said first and second optical paths.

12. (Currently amended) A stereo microscope comprising: a hollow elongated body having opposite ends and enclosing first and second optical paths extending through said ~~microscope~~ hollow elongated body, two oculars mounted at one of said ends ~~having two~~ oculars, each ocular including a lens assembly, a prism assembly in each optical path adjacent each ocular, a lens magnification changer rotatably mounted about an axis and located intermediate the ends of said ~~microscope~~ hollow elongated body, a first series of bores located about the periphery of said lens magnification changer in a common plane and extending diametrically through said lens magnification changer, a second series of bores located about the periphery of said lens magnification changer in a common plane and extending diametrically through said lens magnification changer, a lens assembly located in each bore of said first and second series, the other of said ends of said hollow elongated body including an objective lens, a first of said optical paths extending through one of said oculars to one of said prism assemblies, through one of said first series of bores of said lens magnification chamber and through said objective lens, a second of said optical paths extending through the other of said oculars to another of said prism assemblies, through one of said second series of bores in said lens magnification changer and through said objective lens, ~~said first and second optical paths being located in a common plane~~ one or more light emitting diodes located in said hollow elongated body adjacent said objective lens.

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) A ~~stereo~~ microscope as set forth in claim 14 12, further including a reflector behind said ~~light source~~ one or more light emitting diodes and a pivotally mounted light filter in front of said ~~light source~~ one or more light emitting diodes.

16. (Currently Amended) A ~~stereo~~ microscope as set forth in claim 12, including means pivotally mounting said oculars in said a plane that is common to said first and second optical paths.

17. (Currently Amended) A ~~stereo~~ microscope as set forth in claim 15 12, further including a wall, ceiling or vertical support mount, an adjustable arm attached at one end to said support mount and at an opposite end to said ~~stereo~~ microscope by a connection allowing pivoting at the microscope in any direction and for supporting and positioning said ~~stereo~~ microscope, an attachment connecting said ~~stereo~~ microscope to the head of an operator for positioning of the ~~stereo~~ microscope by the head of an operator.

18. (Currently Amended) A ~~stereo~~ microscope as set forth in claim 12, including a beam splitter in one of said ~~lines of sight~~ optical paths to allow one portion of light to pass from said objective lens to one of said oculars and to reflect another portion of light to a camera located exterior of said hollow elongated body.

19. (Currently Amended) A stereo microscope as set forth in claim 15 14, including a beam splitter located in one of said optical paths ~~lines of sight~~ to allow one portion of light to pass from said objective lens to one of said oculars and to reflect another portion of light to a camera located exterior of said hollow elongated body.

20. (previously presented) A stereo microscope as set forth in claim 1, wherein said two oculars, prism assemblies and lens magnification changer are mounted on a base section of an internal mount located within said hollow elongated body.

21 (Original) A stereo microscope as set forth in claim 20, wherein said hollow elongated body is formed by shells fastened together and enclosing said internal mount.

22. (Previously presented) A stereo microscope as set forth in claim 12, wherein said two oculars, prism assemblies and lens magnification changer are mounted on a base section of an internal mount located within said hollow elongated body.

23. (Previously presented) A stereo microscope as set forth in claim 22, wherein said hollow elongated body is formed by shells fastened together and enclosing said internal mount.

24. (New) A microscope as set forth in claim 12 wherein said first and second optical paths lie in a common plane.

25. (New) A microscope comprising: an internal mount having a base section, two oculars mounted on a first end of said base section, a prism assembly located on said base section adjacent each ocular, said base section having a second end opposite said first end, a lens magnification changer located on said base section intermediate said first and second ends, a first series of bores located about the periphery of said lens magnification changer in a common plane and extending diametrically through said lens magnification changer, a second series of bores located about the periphery of said lens magnification changer in a common plane and extending diametrically through said lens magnification changer, an upper housing shell removably connected to said internal mount by fastening means and enclosing said lens magnification changer, prism assemblies and part of said oculars.
26. (New) The microscope of claim 25 including a lower housing shell located below said internal mount and connected to said internal mount and said upper housing shell to form an enclosure for said internal mount, said enclosure including an end opposite said oculars having an objective lens.
27. (New) The microscope of claim 26, wherein said oculars, prism assemblies, lens magnification changer and objective lens lie in a common plane.
28. (New) The microscope of claim 27, wherein said oculars are mounted on said internal mount for movement relative to each other.
29. (New) The microscope of claim 26, including one or more light emitting diodes located in said enclosure adjacent said objective lens.

30. (New) The microscope of claim 29, further including a reflector behind said one or more light emitting diodes and a pivotally mounted light filter in front of said one or more light emitting diodes.

31. (New) The microscope of claim 25, including a wall, ceiling or vertical support mount, an adjustable arm attached at one end to said support mount and at an opposite end to said microscope by a joint allowing pivotal movement at said microscope in any direction and for supporting and positioning said microscope, an attachment for connecting said microscope to the head of an operator.

32. (New) The microscope of claim 26, including a beam splitter located in an optical path extending through said objective lens and one of said bores of said lens magnification changer to allow one portion of light to pass from said objective lens to one of said oculars and to reflect another portion of light to a camera located exterior of said enclosure.